

SKKQ 31



SEMIPACK[®] 0

Antiparallel Thyristor Module

SKKQ 31

Preliminary Data

Features

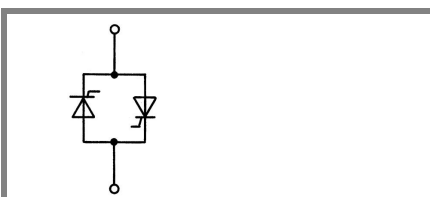
- Compact Design
- Heat transfer through aluminium oxide ceramic isolated metal baseplat
- UL recognized, file no. E 63 532

Typical Applications

- AC motor starters
- Light control (studios, theaters...)
- Temperature control

V_{RSM} V	V_{RRM}, V_{DRM} V	$I_{RMS} = 24 A^{(1)}; 30 A^{(2)}$ A (full conduction) ($T_s = 85^\circ C$)
700	600	SKKQ 31/06 E
900	800	SKKQ 31/08 E
1300	1200	SKKQ 31/12 E
1500	1400	SKKQ 31/14 E
1700	1600	SKKQ 31/16 E

Symbol	Conditions	Values	Units
I_{RMS}	W1C ; sin. 180° ; $T_{case}=85^\circ C^{(2)}$; sin. 180° ;	30	A
I_{tRMS}	W1C; sin. 180; $T_{case}=85^\circ C$	21	A
I_{TSM}	$T_{vj} = 25^\circ C$; 10 ms	320	A
	$T_{vj} = 125^\circ C$; 10 ms	280	A
i^2t	$T_{vj} = 25^\circ C$; 8,3...10 ms	510	A ² s
	$T_{vj} = 125^\circ C$; 8,3...10 ms	390	A ² s
V_T	$T_{vj} = 25^\circ C$, $I_T = 75 A$	max. 2,45	V
$V_{T(TO)}$	$T_{vj} = 125^\circ C$	max. 1,1	V
r_T	$T_{vj} = 125^\circ C$	max. 20	mΩ
I_{DD}, I_{RD}	$T_{vj} = 25^\circ C$, $V_{RD}=V_{RRM}$		mA
	$T_{vj} = 125^\circ C$, $V_{RD}=V_{RRM}$	max. 10	mA
t_{gd}	$T_{vj} = 25^\circ C$, $I_G = 1 A$; $di_G/dt= 1 A/\mu s$	1	μs
t_{gr}	$V_D = 0,67 * V_{DRM}$	1	μs
$(dv/dt)_{cr}$	$T_{vj} = 125^\circ C$	1000	V/μs
$(di/dt)_{cr}$	$T_{vj} = 125^\circ C$; $f = 50...60 Hz$	100	A/μs
t_q	$T_{vj} = 125^\circ C$; typ.	80	μs
I_H	$T_{vj} = 25^\circ C$; typ. / max.	100 / 200	mA
I_L	$T_{vj} = 25^\circ C$; $R_G = 33 \Omega$; typ. / max.	250 / 400	mA
V_{GT}	$T_{vj} = 25^\circ C$; d.c.	min. 3	V
I_{GT}	$T_{vj} = 25^\circ C$; d.c.	min. 150	mA
V_{GD}	$T_{vj} = 125^\circ C$; d.c.	max. 0,25	V
I_{GD}	$T_{vj} = 125^\circ C$; d.c.	max. 5	mA
$R_{th(j-s)}$	cont. per thyristor	1,6	K/W
	sin 180° per thyristor	1,7	K/W
$R_{th(j-s)}$	cont. per W1C	0,8	K/W
	sin 180° per W1C	0,9	K/W
T_{vj}		-40 ... +125	°C
T_{stg}		-40 ... +125	°C
V_{isol}	a. c. 50 Hz; r.m.s.; 1 s / 1 min.	3600 / 3000	V~
M_s	Mounting torque to heatsink	1,5	Nm
M_t			Nm
a			m/s ²
m		50	g
Case	SEMIPACK [®] 0	A 41	



KQ

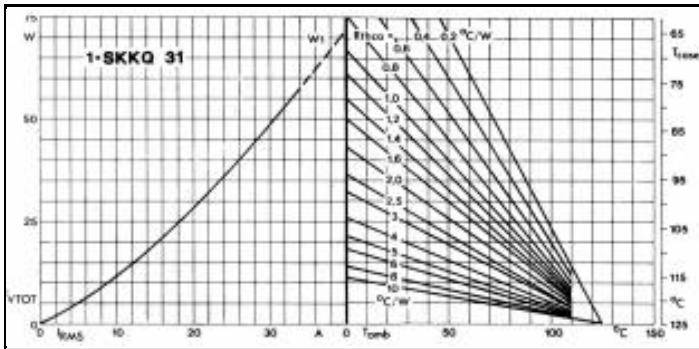


Fig. 1 Power dissipation per module vs. r.m.s. current and case temperature

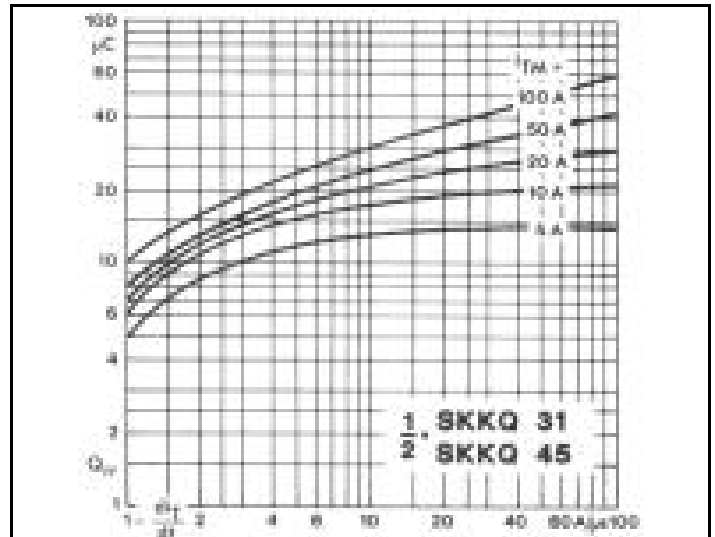


Fig. 2 Recovered charge vs. current decrease

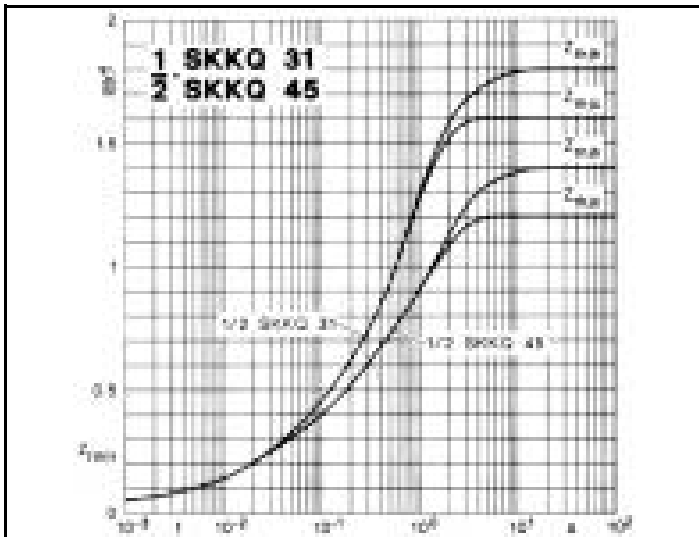


Fig. 3 Thermal transient impedance vs. time

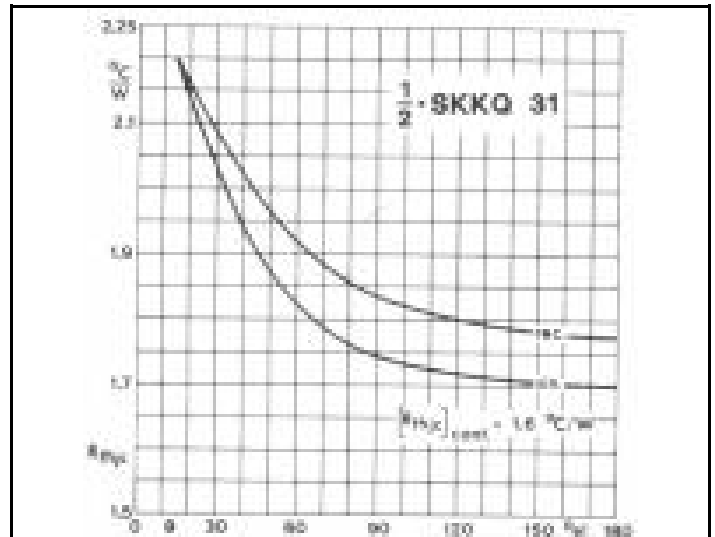


Fig. 4 Thermal resistance vs conduction angle

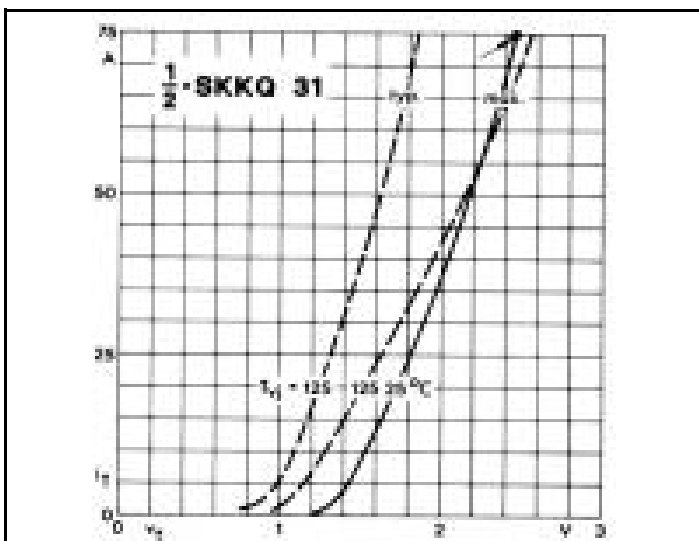


Fig. 5 On state characteristics

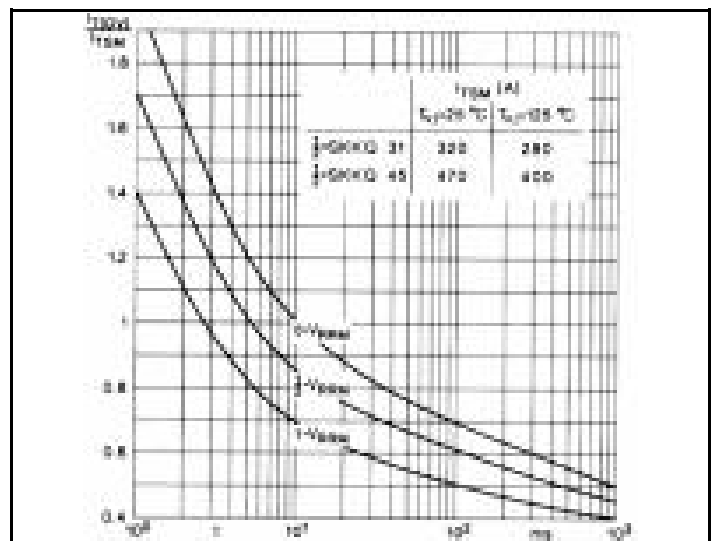


Fig. 6 Surge overload current vs. time

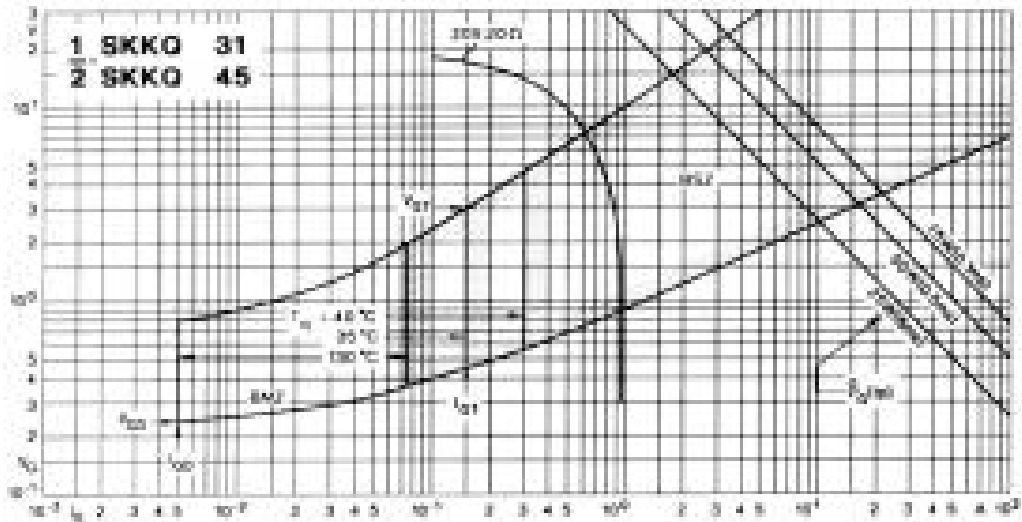
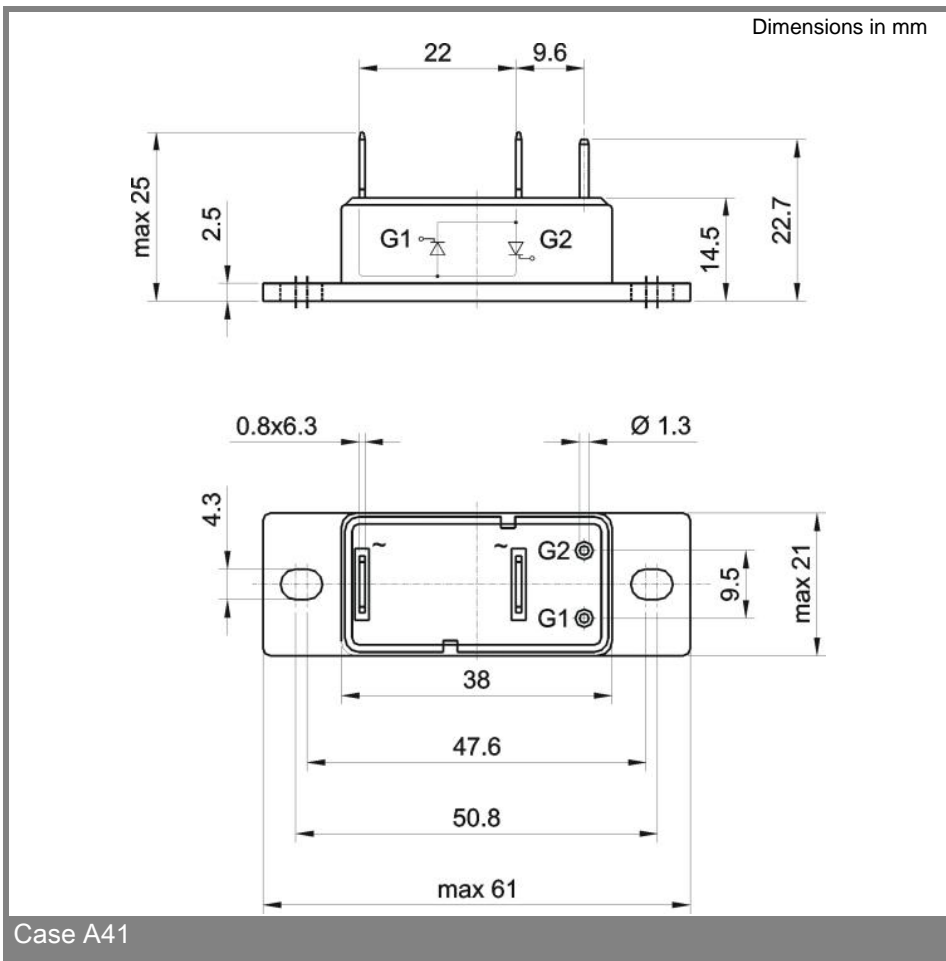


Fig. 7 Gate trigger characteristics



This technical information specifies semiconductor devices but promises no characteristics. No warranty or guarantee expressed or implied is made regarding delivery, performance or suitability.

X-ON Electronics

Largest Supplier of Electrical and Electronic Components

Click to view similar products for [SCR Modules](#) category:

Click to view products by [Semikron](#) manufacturer:

Other Similar products are found below :

[DT430N22KOF](#) [DT61N16KOF-K](#) [T1401N42TOH](#) [T1851N60TOH](#) [T390N14TOF](#) [T420N12TOF](#) [T470N16TOF](#) [T640N16TOF](#)
[T901N36TOF](#) [TD142N16KOF](#) [TD162N16KOF-A](#) [TD330N16AOF](#) [TZ310N20KOF](#) [TZ425N12KOF](#) [TZ500N12KOF](#) [T300N14TOF](#)
[T3710N06TOF](#) [VT](#) [T390N16TOF](#) [T420N16TOF](#) [T460N24TOF](#) [T501N70TOH](#) [T560N16TOF](#) [T590N16TOF](#) [T640N14TOF](#) [TD250N14KOF](#)
[TD570N16KOF](#) [TT600N16KOF](#) [TZ240N36KOF](#) [TT210N12KOF](#) [NTE5710](#) [TD180N16KOF](#) [TT240N28KOF](#) [TZ425N14KOF](#)
[T1081N60TOH](#) [TT61N08KOF](#) [TD251N18KOF](#) [TZ240N34KOF](#) [TT162N08KOF](#) [TD285N16KOF](#) [TT180N12KOF](#) [T2001N34TOF](#)
[TT122N22KOF](#) [TD140N22KOF](#) [MDMA200P1600SA](#) [TT180N16KOF](#) [VS-ST180C14C0L](#) [T1080N02TOF](#) [TD320N16SOF](#) [T360N22TOF](#)
[TZ810N22KOF](#)